

# PLANTAE COLOMBIANAE XVIII

DE PLANTIS REGIONIS AMAZONICAE NOTAE

BY

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## 1. *Henriquezia*

In 1859, Benthams read a paper to the Linnean Society of London entitled: "On the genus *Henriquezia* of Spruce" (in Trans. Linn. Soc. London 22 (1959) 295–298, tt. 52–54). He described four species, all collected by Spruce in 1851 and 1854 from the upper reaches of the Rio Negro and Casiquiare in Brazil and Venezuela: *H. verticillata*; *H. obovata*; *H. nitida*; and *H. oblonga*.

Very little material referable to *Henriquezia* had apparently, until very recently, been collected during the intervening century. Schumann described *Henriquezia Jenmanii* from British Guiana; and Standley described a concept that he called *H. aturensis* from the Savannah of Atures in southern Venezuela. Ducke described *Henriquezia macrophylla* and Bremekamp *H. longisepala*, both on the basis of material collected in the upper Rio Negro basin of Brazil. Most recently, Steyermark has described as new *Henriquezia verticillata* var. *apiculata* from Manaós and *H. nitida* var. *subcuneata* from the upper Rio Negro of Brazil.

*Henriquezia* was established by Benthams as a somewhat aberrant member of the *Bignoniaceae*. The genus has, however, usually been treated as belonging to the *Rubiaceae*. In a very critical study of the morphology of *Henriquezia* and *Platycarpum*, Bremekamp (in Acta.



Bot. Neerland. 6 (1957) 351–377) has set these two generic concepts apart in a distinct family: the *Henriqueziaceae*. Steyermark's recent study (in Mem. N.Y. Bot. Gard. 10 (1964) 199), however, retains the genus in the *Rubiaceae*.

Of Spruce's original species from the upper Río Negro — Casiquiare area, *Henriquezia verticillata* (the type of the genus) and *H. nitida* were known in flower; *H. obovata* and *H. oblonga* (which Benthham suspected as representing possibly but a variety of *H. nitida*) were known only from fruiting material; and the type collection of *H. obovata* consisted of but a single specimen.

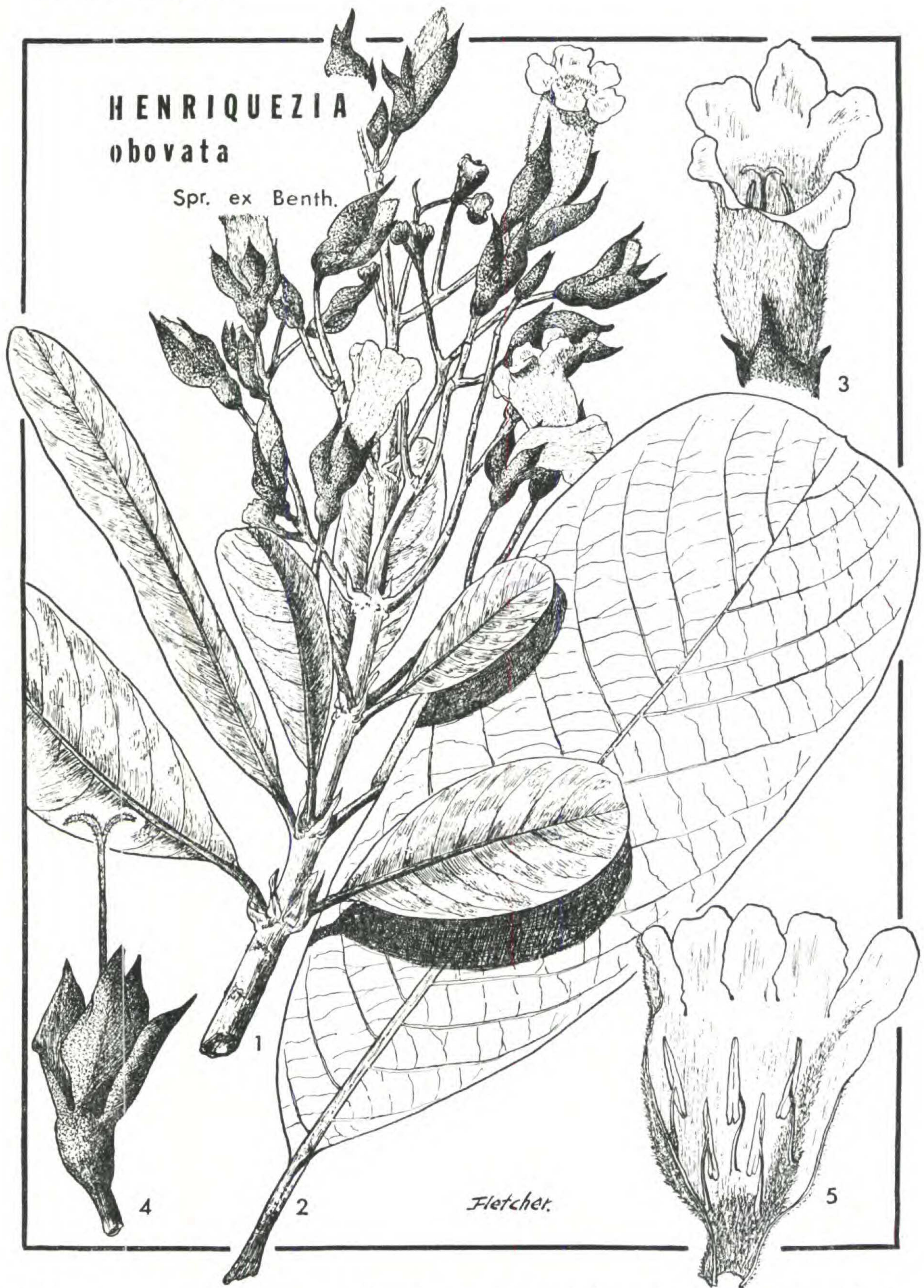
In 1952, ninety-eight years after the Spruce collection, I encountered *Henriquezia obovata* in flower in early November along the Río Guainía, the headwaters of the Río Negro. The tree, about 50 feet in height, prefers the river bank, especially near outcroppings of rock or above cataracts. The bark is unique in being greenish and very rough. The Kuripako Indians who inhabit the Río Guainía know the tree as *oo-wá-pa* and utilize the ashes of the bark and leaves for mixing with clay for making pots. The Kuripakos of the Colombian village of Sejal on the upper Guainía report that the water in which the bark has been boiled for an hour is an efficacious wash in the treatment of a prevalent skin disease known as "pinto" or "carate"; the bark is intensely bitter.

The collection *Schultes, Baker et Cabrera 18222*, on which the following description of the inflorescence and flower is based, was made probably not far from the type locality which was "in woods along the Guainía or upper Río Negro, above the confluence of the Casiquiare."

Panícula terminalis, intra folia summa subsessilis, thyrsoides, 15–20 cm. longa, usque ad 13 cm. in diametro, ramis crassis, subcompressis, sulcatis, verticillatis atque dichotome cymiferis, dense sed minutissime albido-tomentellis. Calyx incurvus, subcrassus, 25–30 mm. longus, extus dense sed minutissime tomentellus pilis



PLATE XLIX



HENRIQUEZIA OBOVATA Spr. ex Benth. 1, flowering branch,  $\times$  approximately  $\frac{1}{2}$  natural size. 2, large leaf,  $\times$  approximately  $\frac{1}{2}$ . 3, flower,  $\times$  approximately 1. 4, calyx and style, after dropping of the corolla,  $\times$  approximately 1. 5, interior of corolla tube,  $\times$  approximately  $1\frac{1}{2}$ . *Drawn by JOHN STANWELL-FLETCHER*



sordide albidis, intus similiter tomentellus sed basin versus aliquid sericeus,  $\frac{2}{3}$  pro parte in lacinias quattuor divisus; laciniis aestivatione valde imbricatis, ovatis, longe acuminatis, apice ipso acutissimis, margine integris sed frequenter aliquid reflexis, parte latiore usque ad 9–10 mm. latis. Corolla rosea, intus atosanguineo-maculata, 35–55 mm. longa; extus maxime densissime albo-sericea appressa siccitate canescens, intus praecipue laciniarum apicem versus minutissime ferrugineo-tomentella sed maxima pro parte glabrescens, et serie pilorum ferrugineorum secus lineam mediam labii inferioris; ad basin faucis dense et grossiuscule albo-strigillosis, lobis adscendentibus, valde rotundatis, usualiter 15–20 mm. longis, usque ad 15 mm. latis. Stamina glabra, infra medium tubi inserta, usque ad 25 mm. longa; antherae 7–8 mm. longae, flavae, medifixae, biloculares, siccitate aliquid spiraliter contortae, longitudinaliter dehiscentes. Stylus basi glaber, apicem versus irregulariter hirto-stigmatosus, apice in lamellis oblongis divisus, usque ad 38–40 mm. longus. Discus epigynus brevis, crassus, pilosus.

COLOMBIA: Comisaria del Vaupés, Río Guainía, Puerto Colombia (opposite Venezuelan town of Maroa) and vicinity, Raudal Sapo. Altitude about 800–850 feet. “Columnar tree 50 feet tall. Crown sparse. Flowers pink, without fragrance; dark red blotches inside throat of corolla. Bark green, rough. Kuripako name: *oo-wá-pa*. October 31–November 2, 1952, *Richard Evans Schultes, Richard E. D. Baker et Isidoro Cabrera 18222* (TYPE OF FLOWER in Herb. Gray).

The flowers of *Henriquezia obovata* indicate a closer relationship with *H. verticillata* and *H. nitida* than to other species, and the closest relationship seems to be with *H. verticillata*. The panicle of *Henriquezia obovata* is apparently smaller and with fewer flowers than that of *H. verticillata*, and the rhachis is conspicuously white-tomentellous instead of rusty-tomentellous. The calyx of *Henriquezia obovata* is likewise white-tomentellous (not rusty-tomentellous as in *H. verticillata*) and is divided for  $\frac{2}{3}$  of its length (instead of only  $\frac{1}{2}$  its length); the calyx lobes of the former species are rhombic-ovate



and basally strongly constricted instead of ovate) and very long-acuminate (instead of abruptly acute). The corolla of *H. obovata* is much more densely pilose than that of *H. verticillata* and has even a pronounced beard at its base; it has dark red spots on its inner surface in the former species, whereas in the latter it is reported to be without spots. The style seems to be somewhat slenderer in *Henriquezia obovata* than in *H. verticillata*. These differences, together with the vegetative and fruit characters pointed out by Bentham and subsequent investigators, leave no doubt in my mind that the *Henriquezia obovata* is indeed worthy of specific distinction. Steyermark (loc. cit. 203) has reduced *Henriquezia obovata* to synonymy under *H. verticillata*, but I believe that, applying the same criteria to *H. obovata* that he applies to the several other concepts which he has treated, it should be worthy of specific, certainly of varietal, status. Steyermark recognizes four species and four varieties.

Since no illustrations of *Henriquezia obovata* in flower have apparently been published, the accompanying plate, drawn from *Schultes, Baker et Cabrera 18222* is offered.

## 2. *Cayaponia*

Quite contrary to usual expectation, weeds and cultivated plants in areas botanically as poorly known as the northwestern part of the Amazon are of great interest and may often have escaped the attention of collectors. Not infrequently, species new to science turn up in or around native agricultural plots. This is apparently the case with the curious cucurbitaceous plant described herein as *Cayaponia ophthalmica*.

### ***Cayaponia ophthalmica* R. E. Schultes sp. nov.**

Herba robusta, alte scandens, usque ad quattuor metr. longa. Caulis flexuosus, pseudolignosus, cortice molle, viride. Ramuli profunde striato-sulcati, omnino sed praecipue in canalibus leviter albo-hispiduli, cum in foliorum

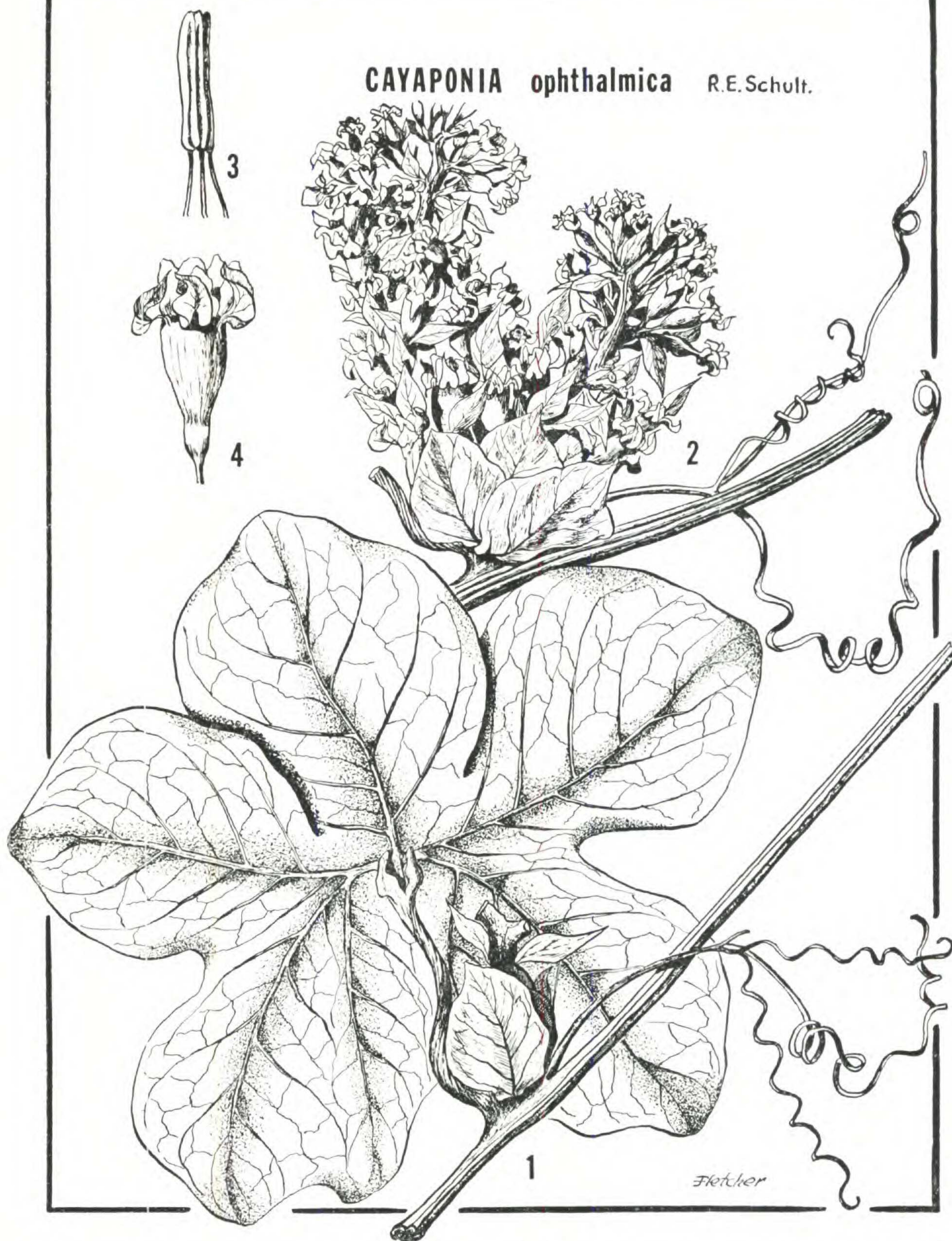


axillis 7–8 bracteis foliaceis conspicuis, violaceis, variabilibus (exterioribus majoribus, ovatis, acutis, usque ad 6.5 cm.  $\times$  4 cm., conspicue venosis; interioribus sensim minoribus, ovato-lanceolatis, usque ad 1 cm.  $\times$  0.6 cm.) instructi. Petiolus satis robustus, striatus, glabrus, apice carnosus-suberosus, conspicue alatus, usque ad 8 cm. longus. Folia coriacea, subpeltata, supra atroviridia, infra pallidiora, utrinque glaberrima, trilobata, usque ad  $\frac{3}{4}$  pro parte divisa, subtus venis robustissimis et conspicue elevatis, nervis secundariis similibus sed inter nervis secundariis venulis tenuissime reticulatis; lobo centrale ovato, apice valde obtuso vel rotundato, margine integerrimo, usque ad 18 cm. longo, 11.5 cm. lato, lateralibus asymmetricis, minoribus, 15 cm. longis, apice rotundato, sino basilare rotundato, basi auriculatis, auriculo magno, normaliter asymmetrico, subovato sed saepe irregulare et frequenter cum auriculo secundario, saepe quam lobis lateralibus subaequale. Cirrhus satis robustus, elongatus, glabrus, 2-furcatus. Inflorescentiae fasciculatae, densissime multiflorae (60- ad 100-florae); rhachide robustiore, saepe 2- vel 3-ramificato. Pedicellus gracilis, glabrus, striatus, 60 mm. longus. Florium fasciculus 2-ad 8-floris, bracteolis conspicuis foliolaceis subviolaceis vel roseis, minutissime sed densiore hirsutis, lanceolatis vel rhombico-lanceolatis, integris, acutis, usque ad 3 cm. longis, 1.4 cm. latis (sed usualiter minoribus) subtentus. Pedicellus gracilis, glabrus, striatus, 60 mm. longus. Florium fasciculus 2- ad 8-floris, bracteolis conspicuis foliolaceis, subviolaceis vel roseis, minutissime sed densiore hirsutis, integris, acutis usque ad 2.5 cm. longis subtentus. Flores speciosi, albi, plus minusve 4 cm. longi. Flos staminiferis: calyx albido-viridis, coriaceus, glabrus, tubo 10-striato, 18–20 mm. longo, dentibus flavis conspicue geniculatis, subtriangularibus, acutis, 6–8 mm. longis, 4–5 mm. latis; corolla alba, plus minusve 10 mm. longa, segmentis triangularibus, acutis, usque ad 6 mm. latis; antherae cohaerentes, plus minusve 5 mm. longae. Flos pistilliferis 20–24 mm. longus. Fructus adhuc ignotus.



PLATE L

CAYAPONIA ophthalmica R.E. Schult.



CAYAPONIA OPHTHALMICA R. E. Schultes. 1, leaf and tendrils,  $\times$  approximately  $\frac{3}{8}$  natural size. 2, part of an inflorescence,  $\times$  approximately  $\frac{1}{4}$ . 3, staminate flower,  $\times$  approximately 2. 4, stamens,  $\times$  approximately  $\frac{3}{4}$ .

Drawn by JOHN STANWELL-FLETCHER



COLOMBIA: Comisaría del Amazonas, Río Apaporis, Soratama (above mouth of Río Kananarí) and vicinity. Alt. about 900 feet. "Vine. Flowers white; green bark rasped and soaked in water to make eye-wash for conjunctivitis. Puinave name = tsun-jo. Makuna = mun-te-ka." January 19, 1952. *Richard Evans Schultes et Isidoro Cabrera 14921* (TYPE in Herb. Gray).

The soft green bark of *Cayaponia ophthalmica* is employed in preparing a soothing wash for conjunctivitis, without any doubt the most widespread disease amongst the Indians of the northwestern part of the Amazon. The specific epithet alludes to this use. The vine, a strong heliophile, is frequently cultivated by the Indians living in the Apaporis River basin. Like so many of the cultivated plants of these natives, it grows almost without care along the margins of agricultural plots where *Manihot utilissima* and *Erythroxylon Coca* are set out, but it is definitely planted for use as a medicine.

*Cayaponia ophthalmica* appears to be most closely related to *C. capitata* Cogn., a species known from the Río Acre area of Amazonian Peru, a great distance from the Colombian Amazon. I have examined a duplicate type at Kew and find that the two concepts are distinct. Both have densely capitate inflorescences, not common in the genus; but in *Cayaponia ophthalmica* the inflorescence can attain a length of 15 cm. and may branch. The leaves of this new species are glabrous on both surfaces, whereas those of *Cayaponia capitata* are sparsely hirtellous above and densely villous beneath. The colored foliaceous bracts and bracteoles (which are not common in the genus) are much larger and more conspicuous in the former than in the latter. There are further differences in the flowers.

The fruit was not seen but is described as being yellowish and the size and shape of a small lime.

A spot test for alkaloids (cf. Raffauf, R. F. in Econ. Bot. 16 (1962) 171) applied to the leaves and the bark of the type specimen was negative.

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